auto-call
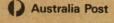
JUNE 1985

75th Anniversary of Amateur Radio: The Wireless Institute of Australia

75th Anniversary of Amateur Radio: The Wireless Institute of Australia

Guglielmo Marconi sent a wireless signal across the English Channel in 1899 and the world advanced into the age of radio. Amateur experimenters showed an immediate interest in the new medium and soon clubs and associations began forming as enthusiasts banded together. Dozens of clubs emerged in Australia. By 1910 the Postmaster-General's Department was advocating the formation of a body to represent the interests of amateur radio groups in this country. The ensuing Wireless Institute of Australia is now claimed to be the oldest national radio organisation in the world. The envelope theme emphasises the personal involvement and world-ranging scope of amateur radio. The operator, in the stamp area, is depicted against a pattern of amateur radio "call signs"–the "VK" prefix indicating that they are Australian.

Envelope design: Rowan Smith, Australia Post Graphic Design Studio.
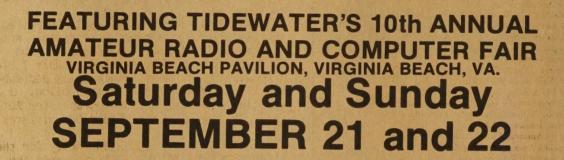Stamp area illustration: Brian Clinton, Melbourne
Envelope number: 095

Australia Post

GAITHERSBURG HAMFEST
September 8, 1985

$1.00

Dear Subscribers:

I will be your acting editor of Auto-Call for the next two issues. In August, the Auto-Call Committee of the Foundation will consider all proposals for editing Auto-Call it has received a make a recommendation to the Board of Trustees. If anyone is interested in editing Auto-Call, they should contact Auto-Call committee chairman Phil Russo, W3ELS, 7320 Oakcrest Drive, New Carrollton, Md, 20784 for further information.

The July issue of Auto-Call will be mailed shortly after this issue is received. Auto-Call will then be back on schedule. The deadline for the August issue is July 7.Please send all club columns, shack sales and subscriptions to my address listed below. I am especially looking for photographs for Auto-Call. Please send your Field Day pictures to me!

I want to thank Ann and Randy Kelly for their efforts in Editing Auto-Call for over the past 4 years. Readers rarely realize how much work goes into editing a publication of this size, and to find someone able to edit it over a 4 year period is beyond the call of duty.

Phil "Pip" Sager WB4FDT
1829 Stanley Place
Falls Church, Va 22043

Our front cover is a First Day Cover of the stamped envelope issued by Australia honoring amateur radio. the bottom wording is from the envelope's reverse.

Foundation For Amateur Radio, Inc.

SUMMARY
BOARD OF TRUSTEES MEETING
MAY 8, 1985

The meeting was called to Order at 8:00 P.M. by President Chris Imlay, N3AKD. There were 18 Trustees present and 6 visitors.

Following introductions, the Minutes of the previous meeting were approved, with the correction to the Calls Signs of Chris Imlay, N3AKD and Glenn Tracy, KC3EK.

The Treasurer's Report and Scholarship Report was presented. It was noted that IRS 900 (Income Tax) Form was submitted and a copy was passed around for the Trustees information.

Pip Sager, WB4FDT, was appointed a Trustee for the Northern Virginia Radio Club.

An extensive ARRL and FCC Report was presented.

Next followed an extensive discussion regarding AutoCall Magazine. During the discussion, Thom Gooding, K4LHB, distributed copies of his proposal to edit the magazine. A Motion was made that the AutoCall Committee and the Foundation solicit bids for the editing of the magazine and that a time limit of June 1st be set for submittal of these proposals, with the understanding that a decision on an Editor be made by July 1. This Motion was seconded. Following further discussion, an amendment was proposed which set the following time limits: June 12 - an RFP would be drafted for presentation to the Trustees and distribution to all interested persons; July 10 - submitted proposals would be reviewed by Trustees; August 14th - contract for the Editor would be awarded. This Amendment was accepted as part of the Motion and, following a vote by show of hands, the Motion, as amended, was approved.

The next meeting will be on June 12, commencing at 8 P.M.

Respectfully Submitted,
Nancy Draheim NK4U
Secretary

"GODSPEED"

The "Godspeed", a replica of one of the ships which brought settlers to Jamestown in 1607, is on a journey from England, where it has been refitted, to the United States. The amateur station aboard the ship is handling all of the ship's communications, and daily schedules have been set up with amateurs in ghe greater Williamsburg, Virginia area. The Callsign of the Godspeed is WA4CHQ/MM1. Presently W/4CHQ/MM1 is only handling message traffic. It is hoped that when the ship approaches the coast of the United States the station will be available for QSO's. (Tnx Williamsburg, Va ARC Bulletin)

PUBLIC SERVICE REPORT

FCC Regulations 97.1: "The rules and regulations in this part are designed to provide an amateur radio service having a FUNDAMENTAL PURPOSE...SERVICE TO THE PUBLIC as a voluntary noncommercial communications service, particularly with respect to PROVIDING EMERGENCY COMMUNICATIONS."

Jeff Wilkes, W4NFA

--- MS 150K BIKE TOUR ---

After two days of rain and a rainy Friday night, the sky began clearing Saturday morning, May 18, at 0600 as volunteers began setting up for checkin of the record number of 186 bikers. By the time the first group of five bikers departed, the sun was shinning, marking the start of what was to prove to be nearly perfect weather for the operation. Other than periods of brisk winds which slowed progress at time, nature was cooperative the entire weekend. This is the third year that the National Multiple Sclerosis Society has sponored this fund raising marathon bike ride through the northern Virginia countryside, and the third year for amateur radio to provide full communications support over the extended route.

At 0600, Jim WI4A started the talkin operation using the Vienna Wireless Society club station and callsign: K4HTA. Irv. W3HQG assisted Jim through the morning by monitoring the NVFMA Tysons Corners repeater and sending participants to the Fairfax machine (146.79/.19) where the morning operation would be conducted. Jeff W4NFA, Communications Coordinator for the Ride, spend the morning checking in ham communicators, working with MS officials, briefing MS volunteers, etc. At 0640 EDT, Jim opened the net operation and by the time the first bikers left Vienna, the first three checkpoints were manned and communications were established. For the rest of the day and the next day nearly constant traffic flowed. Two of the four vans which were to act as SAG wagons, transport the bikers' camping and other equipment to and from the High Road Camp where they were to spend the night, and provide logistics support for the checkpoints cancelled out at the last minute. Jeff W4NFA volunteered use of his van and by some very careful packing, all of the biker's equipment was loaded on the three vans. For the rest of the day, the two original vans, once unloaded, were called on to perform the duties planned for four and were constantly being dispatched and routed by amateur radio. Each van had a driver and a ham communicator.

Just as the operation got into full swing, one of three dogs owned by a MS volunteer at a checkpoint out in the country a few miles southwest of Leesburg was hit by a passing car. The nearest open emergency vet. clinic was identified by a ham (identity unknown) who was monitoring the net, the clinic was contacted from the Vienna Community Center, and instructions were relayed to the checkpoint. Transportation was arranged and the dog was quickly taken to the clinic where it was report that she was in critical but stable condition.

Happily, there were no real medical emergencies among the humans involved, but there were several minor falls and a large number of bikers called for SAG support. There were also a number of breakdowns requiring bikers and their bikes to be transported.

At 1137, the Vienna Community Center operation closed down, and net control was passed to the High Road Center where Howard W3CQH and Larry KA3BAL had completed set up antennas and equipment to support the remainder of the two day operation. They had both gone up to the Center Friday night and camped in order to be certain that they were ready. The net was then moved to the Berryville repeater (147.30/.90) as planned. W3CQH continued the net control operation until completion of the tour. By 1830, the final bikers had arrived, including Tom WB4J/M who had acted as one of the sweeps using his bike mobile setup. An amiable group of hams joined with the biker's in a much deserved dinner and enjoyed the entertainment

provided for the bikers and volunteers. Six hams spent the night in the camp infirmary building which had been taken over by the hams as the command center - it also has the best sleeping accommodations at the camp and bathrooms.

At 0700 May 19, the bikers began leaving the High Road Center (which is a few miles north of Middleburg) and began winding their way through the pleasant countryside to Harper's Ferry where they boarded three special AMTRAK cars for a relaxing champagne and breakfast ride to Washington DC followed by a bus ride to Vienna for checkout. During Saturday evening, two more hams with vans (John WA5IPQ and Glenn W4VCC) who had been monitoring the operation volunteered to come out Sunday and help. With their vans and Bill W3WON's truck supplementing the other two vans, the SAG and logistic's operation went much more smoothly on Sunday. As train departure time (1120) approached, the vans were called upon to sweep the route and pick up any late bikers to get them to the train on time. The last biker made it on time, barely, and while the bikers enjoyed their return train ride, the hams and other volunteers finished tearing down the High Road Center operation and transporting the bikers' gear and bikes back to Vienna. The formal net operation closed at noon, but the last biker and volunteer did not leave the Vienna Community Center until 1430. A total of 25 hams were involved in the operation supporting the bikers and some 35 MS staff and volunteer personnel. Many times the comment was made that the job simply could not have been done without the hams. Participants were: WA2WDT, W3WON, WA5IPQ, WI4A/NCS, KA3BAL, W3CQH/NCS, WB4WZZ, KA4REI, WA4HIM, KI4RM, W4HV, KD4OO, K4LV, KC5CW, N4IXD, WB4IEM, KC4VG, W4PA, W3BA, N3BRM, WB4J, W4NFA/Coordinator, N4GHC, W3HQG, N4KEQ, & N4FSW. Special thanks to Wes Boxwell, WA4TSC and the NVFMA for the use of their fine repeaters.

--- REGIONAL EC NET ---

The monthly Regional EC Net was conducted on 13 May 1985 at 2100 EDT as scheduled. Marc WD4LWD acted as NCS. Upcoming events and past public service and emergency operations were discussed. There were thirteen checkins.

--- DC JULY 4TH PARADE ---

The upcoming DC Independance Day Parade provided a unique opportunity for hams to "show their stuff" to DC officials. For the first time, the DC ARES organization has been given full responsibility for providing all control and communications functions for the event. Ken Williams N3AQG, EC for Washington DC, reports that planning is underway to utilize packet data communications and possibly ATV as well as 2 meter FM. At least 40 hams are needed for various assignments. To provide this manpower the public service corps of the NVFMA will be working with Ken. This is the first time that DC officials have given the ham community the opportunity to demonstrate our wide range of communications and organizational capabilities and we need to give Ken all the support we can so that our hobby will be seen by those officials as the important national capability that we know it is. If you have 2 meter FM, packet, or ATV capability, please call Ken or Joe WB4WZZ (241-0078) and volunteer -- don't wait for them to find you.

--- CHERRY BLOSSOM PARADE ---

400,000 people were on hand this year for the annual Washington, DC Cherry Blossom Parade and Festival. Unknown millions of people watched at home as the parade was televised over twenty networks. A small group ham communicators helped

make it all happen. As the parade units started down the route along Constitution Ave. from 7th to 20th, the two nets provided general command and logistics support to officials, and reunited units with their transportation in the disbursal area. K4AF acted as net coordination station, by monitoring both the general net and the disbursal net and passing traffic between nets. K4AF also provided landline links to the Park Police. The plan was for the hams to supplement an extensive business band network among the sponoring Jaycees, who had taken pains to rent high quality business band HT's and provide two hours of training for their people. But the Jaycee network quickly broke down due to inexperience and poor communications discipline and the ham net quickly became primary communicatiohs. The weather cooperated this year and operations went smoothly. Participants were: Bill W3HXF, John N4IXD, Tom N4BYF, Tom W4LMW, Bruce N3DOD, Irv W3HQG, Al KN3U, Carl WB3HAD, Roy K3UBI, Mike WB9GMO, Bill KA4WWG, Mike KC4VG, Dave KE4TZ, Ed N4EMI, Joe WD4EEA, and Joe WB4WZZ.

--- GEORGE MASON COMMENCEMENT ---

The George Mason commencement for more than 2000 graduates and 10,000 onlookers was assisted this year by amateur radio communications. On Saturday May 18, amateur radio operators shadowed officials from 0800 to 1015 passing traffic to coordinate the movement of people and logistics for the evercise. The 2 meter simplex operation went along without a hitch and University officials praised the ham operation. Participants were: Brian K2SJM/NCS & Coordinator, Jack W4DXZ, Ferrell WI4C, Nancy NK4U, Dick N4DVO, & Vivian N4FGJ.

Public Service Calendar

6/1/85: Capital Motion Bike-a-thon; Ken N3AQG 363-4234

6/8/85 - 6/9/85: Old Dominion 100 Mile Horse Ride and Run; 2 FM, 6, HF SSB & RTTY, & 2 Packet; Bill WB4NFB (703) 323-8345

6/10/85: 2100 EDT; EC Net; 146.91/31

6/15/85 - 6/16/85: Fairfax Fair at George Mason University; Joe WB4WZZ 241-0078

7/4/85: D.C. Independance Day Parade; 1000 - 1600; 2 FM, 2 Packet, & ATV; Joe WB4WZZ 241-0078

7/4/85: Vienna July 4th Festival; 146.685/.085, HF, RTTY, & ATV; Jeff W4NFA 281-4249

7/8/85: 2100 EDT; EC Net; 146.91/31

8/12/85: 2100 EDT; EC Net; 146.91/31

8/31/85 - 9/2/85: International Children's Festival at Wolf Trap; 2 FM; Joe WB4WZZ 241-0078

To have your event appear on the calendar, send date, time, place, and the name and telphone number for the amateur radio coordinator to 9809 Meadow Dale Ct., Vienna, Va. 22180.

FOUNDATATION FOR AMATEUR RADIO
VOLUNTEER EXAMINER COOPERATIVE
By
Nancy Draheim NK4U
3513 Old Post Road
Fairfax, Va 22030
703-691-0078

This column has generated alot of interest from potential hams or those who are licensed and looking for upgrading classes. If you know of a club, or individual who is planning to give a class in amateur radio theory, please let me know the particulars to this information can be passed along.

SCHEDULE OF EXAMINATIONS

July 13, 1985
Southern Maryland ARC, Andrews AFB
Requirements for appointment--Advanced applications requested--Limited walkins on a space available basis.
$4.00 check made out to ARRL/VEC
Completed FCC Form 610
Copy of your current Amateur Radio license (If any)
Self-Addressed, stamped Business sized envelope
Mail application to Mert Matteson, 8001 Woodyard Rd, Clinton, Md 20735

July 20, 1985
Richmond ARC, Richmond,Va
Requirements for appointment, same as Southern Maryland ARC (Above)
Applications must be received by June 20, 1985.
Mail application to Mac Crush, 9302 Ledbury Rd, Richmond, Va 23229

July 28, 1985
BRATS ARC, Howard County Fairgrounds
Walkins accepted.
For information contact George Freed, 21208 Velvet Hill Drive, Owings Mills, Md 21117
(301) 356-5588

August 4, 1985
SHENANDOAH VALLEY ARC, Berryville, Va (Berryville Hamfest)
Applications must be received by July 8--limited walkins
Mail applications to Walt Quitter, 367 Buckingham Dr, Stephens City, Va 22655
(703) 869-5241

September 21, 1985
Virginia Beach ARC, Virginia Beach, Va (ARRL Virginia State Convention)
For information contact Tidewater Radio Conventions Inc. 1234 Little Bay Avenue, Norfolk, Va 23503 (703) 587-1695

September 28, 1985
RICHMOND ARC, Richmond, Virginia
Applications must be received by August 28, 1985
Same as Southern Maryland ARC above
Send application to Mac Crush, 9302 Ledbury Rd, Richmond, Va 23229

December 14, 1985
Portsmouth ARC/Tidewater ARA, Portsmouth, Virginia
Applications must be received by November 14, 1985.
Same as Southern Maryland ARC above
Mail applications to George Parsons, 4800 Manor Ave, Portsmouth, Virginia 23703

WHAT IS PACKET RADIO?

by K4JST

What is packet?

Packet Radio is a relatively new mode of amateur digital communication. It has some characteristics of RTTY and ASCII, but adds several important features including error correction and the ability to relay information in a newtwork. The term packet originated with the packet switching technology developed in the late 1960's to tie computer users together in newtworks. The term packet also refers to the burst of data or frame, but this will be discussed later.

How did Amateur packet get started?

The early work was done by the Vancouver Amateur Digital Communications Group. In the late 1970's, the Canadian DOC began encouraging experimentation with digital communications. By mid 1980, the FCC allowed US hams to use certain digital modes (ASCII) and began to relax regulations that had prohibited experimentation with other codes. A group, first a club and later a non-profit research and development corporation known as Tuscon Amateur Packet Radio (TAPR), began their work with packet hardware and protocol. It is important to note that our present packet radio is unique to amateur radio with a protocol that is not directly related to commercial protocols. This can be important when material must be sent with some security from casual listeners. I doubt that the average SWL or scanner owner is likely to have a packet receiver.

Packet Hardware -

The "guts" of packet radio is the Terminal Node Controller (TNC). This is a strange sounding name for an active device that goes between the computer and the rig to encode and to decode the packets of information. Up to now, the approach for packet has been to use firmware. Firmware is simply software that is "burned" into ROM. In addition, the TNC contains a separate microprocessor and a serial port to handle the actual encoding and decoding of information. There is however, no reason why the job can not be done with software alone (using the RS232 serial port that is common to most small computers). This approach is being done by at least one commercial product already and I predict that it will be the most common approach in the near future. For the present, the TNC handles all the chores involved in actually sending and receiving the data including packaging of data into packets or frames, keying and modulating the transmitter, and receiving or demodulating the data from the receiver. The TNC also checks for the integrity of the received packet and initiates the request to have the information resent if needed. The TNC can also allow any unit to serve as a repeater or digipeater if requested.

The Packet itself - What is in the burst of noise that allows it to check for correction, to request corrections and to route messages through a network?

Each packet is arranged in a specific frame or protocol that allows all who are using the mode to communicate with each other. At present, there are two protocls in common use: the Vancouver and the AX.25. Most present equipment supports both, but it appears that the AX.25 is becoming the single standard.

<div align="right">(over)</div>

The packet itself is based on a commercial format known as HDLC (High-Level Data Link Control) which as six fields or parts. The first and last parts are called FLAGs and are identical and unique (ie they do not apper anywhere else under any circumstances). These provide the equivalent of a start and stop bit. If the receiving TNC does not decode the expected FLAG at each end, it requests an immediate resending of the packet. The second field is an ADDRESS segment that includes information such as the originating station and the destination station plus routing instructions. The third field is CONTROL. This is where the acknowledgment for correctly received packets is initiated. It is also where the connect and disconnect and flow control functions are implemented. The fourth field is DATA (normally ASCII for straight text). The fifth field is the FCS or Frame Check Sequence. This is where the error correction takes place. The receiving TNC calculates a value based on all information received after the FLAG. If this value does not equal the Received FCS, then a garble took place and the CONTROL function initiates a request to resend. The last field is a FLAG identical to the first and alerts the receiving TNC that a valid packet has arrived. All this sounds complicated, but the TNC operator (ie all you have to do is give the needed addressing information and supply the data).

What is the procedure for a packet contact?

The operator desiring to send a message types a request to CONNECT. He amy include specific routing instructions. If the other station is checked into the network (ie listening), and if that station is not busy, the message "***CONNECTED TO NY4G***" appears on both screens. During the time of a connection, only packets addressed to the two linked stations will print. This allows multiple stations to use the same frequency at the same time. At the end of the contact, either operator can request a DISCONNECT to terminate the link.

What is the difference between packet repeaters and conventional repeaters?

A packet repeater is normally a simplex repeater. It receives, acknowledges and then retransmits the information on a single frequency. Simple, no split antennas, no duplexers etc. Since the packets are short (.75 sec) and include the ID of both stations, there is no need for "TIMEOUT" timers. In fact, any station can serve as a repeater or "Digipeater" on request. For example, if I want to talk to NY4G in Virginia Beach, the simplex path is far too long for a direct connect, but I can specify that the CONNECT be routed through K4UMI-5, the packet repeater at Langley AFB. The routing request looks like this: CONNECT NY4G VIA K4UMI-5 (this can be written out as above or abbreviated C NY4G V K4UMI-5). If Loy is busy, my terminal shows ***NY4G BUSY*** if not, it shows ***CONNECTED TO NY4G***. If it is a busy night and K4UMI-5 is near saturation, I could use another station to link. In this case I might CONNECT NY4G VIA W5IAV. Since Lee is a bit long for good simplex from me, I would use another station CONNECT NY4G VIA WA4RBC,W5IAV and so on. Digipeating allows up to eight relays to be specified. It will soon be possible to work from our area into New England with nothing more than an HT, a TNC and a terminal.

The future-

Digipeating allows networking by relay, but still to come is true networking where the message is entered and routing takes place by automatic analysis of what stations are available and how much traffic is pending or enroute. In these true networks, acknowledgment takes place only at the end and not at each step along the way. This

speeds up the transfer rate considerably. There will be a growth of electronic Mailboxes to allow messages to be entered for stations not presently checked into the network. In addition, the amateur satellites will allow long distance continent-spanning linking of nets with little disruption due to propagation and noise. I predict that packet networks will become the backbone and at the same time the link between the National Traffic System and ARES. These two important areas of public service will finally become integrated in reality and not just on paper.

Gil Frey K4JST
Net Manager 4RN/4
EC Charles City County VA
Rte. 1 Box 44
Charles City, VA 23030

Packet Hardware Source/Summary (March 1985)

TAPR, Box 22888, Tuscon, AZ 85734 - Kit, board, semi-kit, case. Board is presently $240.

AEA, Box C-2160, Lynnwood, CA 98036 - PKT-1, this is the TAPR board ready to go and 1 year warranty. Produced under arrangement with TAPR. Cost is around $500.

GLB, Dept. H, 1952 Clinton St., Buffalo, NY 14206 - Ready to use unit PK-1 is $150. Case and RTTY adapter also available.

Richcraft Engineering - available through Ham Radio Bookstore, Greenville, NH 03048 - This is a total software approach to packet. The book is $22, book and disk is $50. Written for the TRS-80 Models I, III, IV.

(Other sources - I have never seen an ad for the Vancouver Board, but it is available. A company by the name of Ashby had a board advertised, but can not find their ad. TAPR annual meeting this month announced that AEA would continue to produce their assembled unit and that Heathkit would market their kit. There is a Z-80 based board produced by Xerox that is adaptable to packet.)

FCC Highlights

Bill Grenfell, W4GF

FCC HAS MADE THE NEW 24 MHz BAND AVAILABLE TO U.S.A. AMATEUR LICENSEES EFFECTIVE 0001 UTC, JUNE 22, 1985. This action in PR Docket No. 84-960 includes the 10.100-10.150 MHz (30 meter) band. Action on the 420-430 and 902-928 MHz bands "will be considered in a subsequent Report and Order." General, Advanced and Extra Class licensees can operate throughout the 30 meter band with A1A and F1B (CW and FSK) emissions with not more than 200 watts peak envelope power (PEP) output. The entire 24,890-24.990 MHz (12 meter) band is available to General, Advanced and Extra Class operators for use of A1A emission at not more than the maximum authorized 1500 watts PEP output. 24.890-24.930 MHz is available for F1B and 24.930-24.990, also at not more than maximum authorized power output, with A3E, J3E, R3E; F3E, G3E; A3C, F3C; A3F, F3F emissions and, for all three classes. The foregoing designators translate to: Telephony, amplitude modulated with double sideband, with single sideband supressed carrier, with SSB reduced carrier, and with SSB full carrier; Telephony with FM and with phase modulation; Facsimile, with AM and with FM; Television, with AM and with FM.

LAND MOBILE RADIO SERVICES USE OF THE BAND 421-430 MHz IN DETROIT, CLEVELAND AND BUFFALO IS PROPOSED BY FCC IN IT'S NOTICE OF PROPOSED RULEMAKING (NPRM, GEN Docket No. 85-113) Adopted April 15, 1985. The Notice cites the sharing of 420-430 and 440-450 MHz bands by the Radiolocation Service on a primary basis, the Amateur Service on a secondary basis, as specified in footnotes 651 and 652 of the international allocation table of the World Administrative Radio Conference agreement in 1979 (WARC '79). During the proceeding to implement WARC '79 allocations, the United States and Canada came to an agreement regarding operation adjacent to the border which while primarily concerned with radiolocation use in the U.S. and land mobile use in Canada, "...will also allow land mobile operation by the United States within the coordination zone..." The FCC refers to the PR Docket 84-960 NPRM proposing deletion of the 420-430 MHz band from amateur use in the below the border zone "...where mobile spectrum is in short supply. "...land mobile operations in Detroit, Cleveland and Buffalo...is possible because Government radiolocation transmitters are not currently located near these cities and the Government intends to minimize operations in those vicinities." This proceeding does not propse amendment of the Amateur, Part 97, rules but would amend the FCC Part 2 frequency allocation table to put the Non-Government Land Mobile Service on a primary basis in the 420-430 MHz band. Comments could be filed until May 28 and reply comments on or before June 12.

PROVISION FOR AUTOMATIC CONTROL OF AMATEUR RADIO STATIONS IS PROPOSED BY FCC in a Notice of Proposed Rule Making adopted April 5, 1985 (PR Docket No. 85-105). Such operation would be limited to frequencies above 29.5 MHz but would include 28.20-28.30 MHz beacons. Section 97.3(m)(3) would read: "Automatic control means the use of devices and procedures for control of an amateur station without the control operator being present at the control point." Section 97.79(b) would read, in part: "Every amateur radio station, when transmitting, must have a control operator." "The control operator must be present at the control point of the station, except when the station is transmitting under automatic control..." New Section 97.80(b) and (c) would read: "(b) When under automatic control, devices must be installed and procedures must be implemented which will insure compliance with the rules when the control operator is not present at the control point of the station." "(c) No amateur radio station may be operated under automatic control while transmitting third-party traffic." The

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Commission advised "...we believe that now is the time to expand automatic control to all amateur operations, prohibiting it use only in those situations where there is a justifiable reason why automatic control should not be used." FCC invites amateurs to submit comments in particular "...calling to our attention any problems that may arise by expanding automatic control to encompass all amteur radio operations." The FCC also indicated it did not want to introduce any innovations which would be distruptive or change the character of the Amateur Service. Original comments are due by June 25 and reply comments by July 25. FCC's address is Washington, D.C. 20554. Refer to Docket No. PR 85-105.

EFFECTIVE JUNE 17, 1985 THE EMISSIONS AMATEURS MAY USE IN THE 1800-2000 kHz BAND ARE EXPANDED TO INCLUDE RTTY, FM AND PHASE MODULATION TELEPHONY, AM AND FM FACSIMILE, AND AM AND FM TELEVISION. The added emission designators are: F1B (FSK including RTTY); F3E and G3E (FM and phase modulated telephony); A3C and F3C (AM and FM facsimile); A3F and F3F (AM and FM television). By footnote (3) to Section 97.61(b) "...J3E, R3E, and H3E may also be used." J3E is Single Sideband Suppressed Carrier (SSBSC), R3E is Single Sideband Reduced Carrier (SSBRC), and H3E is Single Sideband Full Carrier (SSBFC). The Commission said it was making the change because "...additional inter techniques." While it was not specifying subbands for particular types of emission, FCC urged adherence to a voluntary bandplan which ARRL will develop. FCC also noted that is action in this case "...does not in any way limit our descretion in..." the PR Docket 84-874 proceeding regarding the use of 1900-200 kHz for Radiolocation.

ON MARCH 25, 1985, THE FCC ADOPTED AN ORDER AMENDING THE AMATEUR RULES TO CHANGE THE FREQUENCY AND EMISSION TABLES TO MORE USABLE FORMATS. Because the action was for the purpose of clarifying the rules and the changes were non-substantive, the usual provision for comment via a Notice of Proposed Rule Making was eliminated. In Section 97.7 it lists the frequency bands or subbands available to each class of operator licensee together with footnotes indicating any conditions or limitations on usage of the bands or subbands. In amended Section 97.61 is a tabulation of all of the bands, subbands and frequencies available to the Amateur Service, with the emissions authorized therein. Paragraph (b) of that Section specified numbered statements of emission limitations applicable to most of the bands. This action injects the WARC '79 three unit letter-number-letter emission designators into Section 97.61, en-masse. Appendix 3 of the Commission's Amateur Radio Service rules was amended on October 26, 1984, by FCC's General Docket No. 80-739, to substitute those new WARC '79 emission classifications "which appear most applicable to the Amateur Radio Service." Also amended were: Section 97.85 Repeater operation; Section 97.86 Ausiliary operation; 97.87 Beacon operation; and 97.95 Operation away from the authorized fixed station location.

FCC HAS PROPOSED EXPANSION OF TELEPHONY PRIVILEGES IN THE 7075-7100 MHz SEGMENT OF THE 40 METER BAND TO INCLUDE LICENSEES LOCATED IN THE CARIBBEAN INSULAR AREAS (NPRM, PR Docket No. 85-104). This is in respone to a petition filed by David Novoa who stated that FCC-licensed amateurs in the Caribbean are situated similarly to amateurs in Hawaii and Alaska who were recently granted telephony privileges identical to those he had requested. In the comments on Novoa's petition received from other interested parties by FCC were recommendations to limit the proposed privileges to Advanced and Extra Class operators in order to insure minimum interference to amateur telegraphy and radio-teleprinting operations in the continental United States. Also received were recommendations to was expand the size of the proposed telephony segment to 7050-7100 kHz because authorization is pending for a commercial shortwave station to operate above 7100 kHz. The proposed 50 kHz band would be available to all amateur stations outside the continental 48 states. FCC advises it seeks comments not only on the proposal itself but also on the foregoing described alternatives. Original comments were due on or before June 17 and reply comments by July 17, 1985.

FCC HAS ORDERED AN AMENDMENT TO AMATEUR RULE SECTION 97.121 TO CLARIFY HOW AN OPERATOR USING THE STATION AND CALL SIGN OF ANOTHER OPERATOR HAVING LESSER OPERATING PRIVILEGES SHOULD IDENTIFY HIS OPERATION WHEN USING PRIVILIGES EXCEEDING THOSE OF THE STATION LICENSEE. The amended Section 97.121 which is titled "False Signals" reads as follows: "An amateur radio station must not transmit:

(a) False or deceptive signals or communications by radio; NOR

(b) For purposes of identifying the station, any call sign which has not been assigned to it. Notwithstanding the foregoing, when a station is operated within the privileges of the operator's class of license but which exceed those of the station licensee, station identification must be made by following the station call sign of the station being operated with the operator's primary station call sign in accordance with Section 97.84(b)." The petition was filed by David Popkin. The effective date of this rule amendment was May 20, 1985.

IN MID-APRIL ARRL HEADQUARTERS OFFICIALS VISITED FCC'S GETTYSBURG LICENSING FACILITY TO LEARN WHAT WOULD BE INVOLVED IF THE LEAGUE DECIDES TO PROVIDE ASSISTANCE TO THE COMMISSION IN THE AREA OF CALL SIGN ISSUANCE, AND TO EXPLORE THE POTENTIAL COST TO THE LEAGUE.

ARRL HAS FILED COMMENTS IN PR DOCKET 85-23, THE "MICROWAVE ACCESS DOCKET" DRAWING ATTENTION TO SEVERAL ERRORS, FOR THE MOST PART CONCERNING THE RELATIVE STATUS OF SERVICES SHARING A BAND UNDER THE ITU RULES. "In 220-225 MHz, for instance, both ITU and FCC Part 2 allocations show the Fixed, Mobile and Amateur Services as co-primary, yet restrictions in the amateur table proposed in 85-23 are those used to protect a primary service from being interfered with by a secondary service. "In the 10 GHz band, non-government radiolocation services are clearly secondary to amateurs in the Part 2 rules, yet 85-23 shows the reverse. "ARRL comments also repeat the League's request that the 1.2 GHz allocation be released to the U.S. Amateur Satellite Service as soon as possible, to allow U.S. amateurs to use AMSAT-OSCAR 10 when it is operating Mode L. "League comments support the Commission's proposal to favor voluntary band plans over FCC-imposed subbands." (The ARRL Letter, 04/25/85).

ARRL HAS FILED COMMENTS CONCERNING THE EXAM RETEST WAIT PERIOD, THE PROCEDURE FOR ADVANCED NOTICE OF EXAM SESSIONS AND THE CREDIT FOR CERTIFICATES OF SUCCESSFUL COMPLETION, AS PROPOSED BY FCC IN THE DOCKET 85-21 RULE MAKING PROCEEDING. ARRL opposes the elimination of the required waiting period stating "The present rule is not something that can or should be left to VECs to establish for their own programs, since to do so would encourage the establishment of short waiting periods at the expense of program integrity." The FCC also proposes to eliminate the requirement that advanced public notice be given for test sessions for less than five people. ARRL opposes this amendment on the grounds that it could lead to abuse, or possible perceived abuse, of the Volunteer Examiner Program. ARRL comments raise the question of credit for Certificates of Successful Completion, and suggest that if the Commission seriously wishes to improve the Volunteer Examiner Program, the question of credit for written examination element should be answered immediately. (The ARRL Letter, 04/25/85).

ARRL COMMENTS ON FCC'S MASS MEDIA DOCKET 85-38 CABLE TV DEREGUALTION TO THE EFFECT THAT, "...IF ADOPTED (IT) WOULD DELETE QUALITY PERFORMANCE STANDARDS FOR CABLE SYSTEMS AND INCREASE PERMISSIBLE SIGNAL LEAKAGE LEVELS IN THE 54-216 MHZ BAND." "...that an increase in signal leakage levels sends the wrong message to those cable companies what are not complying with the present rules." "...it would appear that the proposed increase in maximum cable signal leakage levels is unnecessary to well-engineered, well maintained systems..."While joint ARRL/NCTA engineering efforts are ongoing, there has been effectively no success in resolving interference problems submitted by the ARRL to

NTCA for review and assistance...Of 37 cases referred to NCTA (National Cable Television Association) only one has been resolved, and 29 complaints have indicated no abatement in cable signal egress interference...The ARRL comments also take exception to the Commission's comparison of cable leakage to radiation from devices covered under Part 15, such as computers. While computors may be switched off, cable leakage is constant. Computors are also "point source" radiators, while any RF that escapes from the coaxial cable may use the entire conductor as an antenna. (The ARRL Letter, 04/1/85).

FCC'S MASS MEDIA DOCKET 84-706 ORDER AUTHORIZES THE USE OF 7100-7300 kHz BY FCC-LICENSED BROADCAST STATIONS IN THE PACIFIC OUTSIDE ITU REGION2. Region 2 includes North and South America and Greenland. ARRL recommended 'quiet periods" to protect Region 2 Amateur operation, while broadcasters pointed out this would open the way for international braodcasters not licensed by FCC to occupy the frequencies during those quiet hours. FCC adopted a requirement that none of the affected stations may operate at any time with antennas oriented toward Region 2. Also, during 0800 to 1600 UTC, radiation in any easterly direction that would intersect Region 2 must be limited to a specific level (at least 6 or 12 dB) below the level from the main lobe of the antenna. (The ARRL Letter, 04/11/85).

THERE HAS BEEN AT LEAST ONE PUBLISHED REPORT OF CHEATING DURING A VOLUNTEER SUPERVISED EXAMINATION. During a taped code test, two of the Volunteer Examiners became suspicious of two applicants and found upon checking that they both had perfect scores, but for the previous month's examination! The test had been changed. "Once discovered, one of the applicants bolted for the door taking his FCC 610 application with him." "The other applicant eventually told the examiners that a third applicant had recorded the code test using a micro-recorder at a previous session." "The VE team was able to confiscate the crib sheets that these two applicants had." "In accordance with the FCC's instructions to VECs, the FCC's Compliance Branch has been notified of the identities of those involved and will be forwarded all related paperwork once received from the VE team." (W5YI REPORT, 05/15/85).

A PORT AURTHUR, TEXAS AMATEUR HAS GONE TO CONGRESS IN AN ATTEMPT TO STAVE OFF THE TRANSFER OF 1900-2000 kHz IN THE 160 METER BAND TO THE RADIOLOCATION SERVICE. He contends that the FCC has acted illegally, and in direct violation of the 1979 WARC accords and the Administrative Procedures Act. He claims this due to the issuing of Docket 84-984, which reduces to "secondary" the status of amateur radio in the disputed spectrum. In letters to various Congressional leaders, including Senator John East, he notes that the frequency allocation table resulting from WARC '79 clearly shows that the US Amateur Radio Service is a co-primary spectrum user. He charges that the FCC has illegally altered the allocations table because of domestic considerations that are in conflict with approved World Allocation Table, which shows that amateurs are co-equal with fixed mobile and radiolocation users. (WESTLINK Report, 05/03/85).

THE FCC WILL SHORTLY BEGIN A PERFORMANCE REVIEW OF THE ACTIVITIES OF ALL INDIVIDUALS AND GROUPS SERVING AS VOLUNTEER EXAMINATION COORDINATORS. The purpose will be to determine if each is truly qualifed to continue in VEC capacity. This will be based upon overall activity, pass rate, and adherence to VEC program rules. Included will be determination of the security integrity of each VEC in regard to testing materials and methods of administering exams, and the overall quality of the completed paperwork that is supplied to FCC's license processing facility at Gettysburg, PA. (WESTLINK Report, 05/03/85) I have seen some examples of the paperwork supplied to Gettysburg, and it is pretty sloppy! Many examinees are having to wait for their licneses because the forms have to be returned for lack of all the required information.

MARCH '85 VOLUNTEER EXAMINATION STATISTICS: Number of sessions, 252; Number of locations, 241; Elements passed, 3478; Elements failed, 2700; Elements Administered, 6178; Lowest pass rate, 16.67%; Highest pass rate, 95.83%; Average pass rate, 56.30%.

"TO CQ OR NOT TO CQ (on FM)
THAT IS THE QUESTION"

A REPLY

In response to K3BEQ's Letter to the Edior on page 27 of the February 1985 issue of
Auto-Call, I believe there IS a benefit to be derived from the use of a short "CQ"
on repeaters. I shall explain, but first let me digress.

As Mr. Green stated, back in the early days of FM and repeaters, there developed an
"Old Wives' Tale" that has, over the years, come to be interpreted as meaning that
the use of the term "CQ" is VERBOTEN, a greater faux pas than saying "10-4" or
calling another ham a "good buddy". Instead, the tale says that you should beat
around the bush when you want to find another Amateur to talk to - say anything that
you can think of to infer that you are calling CQ without using the term "CQ". As
a result, all kinds of non-standardized, ambiguous practices have developed -
"listening", "monitoring", just stating your call sign, et., etc., etc., - all for
the purpose of avoiding the term "CQ"

So the question arises; Why not use "CQ"? There are lots of excuses, but no one can
give a valid reason for not using this term, which is defined in Webster's New
Collegiate Dictionary as "communications code letters used.....by shortwave amateurs
as an invitation to talk to other shortwave amateurs". The only justification given
is that it's the "accepted custom".

I say BALONEY! Why beat around the bush? Why not say what you mean? On page 38-1
of the 1985 ARRL Handbook, under the heading "Establishing Contact" it says "If you
call CQ, it means you are willing to talk to anyone...." Webster's defines the verb
"monitor" as ".....3: to watch, observe, or check.....". It defines the verb
"listen" as ".....1: to pay attention to sound.....3: to be alert to catch an
expected sound....." These words don't mean anything remotely similar to the
definition of "CQ". Why re-define these words for no useful purpose? The English
language is already screwed-up enough, witness the growing use of the word (??)
"destinate", whatever that is. (Oh, well, that's a different soapbox!) It takes
less time to say "CQ from W3XYZ" than "This is W4XYZ monitoring". And you certainly
cannot mis-interpret what someone means when he says "CQ"!

Ask yourself "What should I say if I want to announce that my radio is turned on and
I will be passively monitoring the frequency? I can't announce that I'm 'monitoring'
or 'listening', because someone will think that I'm calling CQ." This is ludicrous!

Also on page 38-1 of the '85 Handbook, it states "ARRL recommends standard procedures
that are based on our particular needs..... Let's all use the same standard....."
And yet on page 38-4 of the same Handbook, under "Repeater Operation" it states "2)
To initiate a contact simply indicate that you are on frequency. Various geographi-
cal areas have different practices..... One practice that is usually looked upon
with disfavor.....is calling CQ on a repeater." Well, Newington, which way is it
going to be? The League is perpetuating the Old Wives' Tale. I object!

I stated that I believe there is a benefit to be derived by using "CQ" on FM. Very
simply, it takes less time and it cannot be mis-understood. I rest my case.

Actually, I think Mr. Green's letter should have been entitled "To criticize or not to criticize....." I will be the first to admit that I am probably one of the individuals Mr. Green overheard on the air. If what I said to the out-of-towner was interpreted as being an "intimidating semi-lecture on the virtues of the CQ", then I apologize to all, for such was certainly not my intent, and it is indefensible.

With the preceding paragraph in mind, consider this: How many hundreds of times have newcomers to VHF-FM been severly chastized for doing the same thing they always have done on all of their other types of Amateur operation? They called CQ only to be "chewed out" to the point of selling their new 2 Meter FM rig and saying "to heck with FM". I believe that these dozens (or hundreds) of proponents of the "Old Wives' Tale" are more guilty of making a poor presentation of their case because their basic premise is severly flawed!

Yes, I was a member of the "you don't call CQ on FM" crowd for many of my 25+ years on VHF-FM. But I have thought about it, and have changed my opinion. So try it. You, too, might like it!

73,

Gary Hendrickson, W3DTN
Severn, MD 21144

REVOLUTIONARY NEW ANTENNA PRODUCT
(Tnx The Amateur Radio Guide, April issue)
Modified by WB4FDT

A new product is ready to be marketed which will revolutionize amateur radio antennas. This new product is named "ANTENNA WAX", also known by its generic name, SNAKEOILUS. Yes readers, are you bothered by high SWR, QRM or QRN? Does your antenna array have difficulty turning in high winds? Having trouble breaking pile-ups for those really rare countries? ANTENNA WAX will solve these and other problems! Simply wipe it on any of your antennas and watch the QRM, QRN and SWR slide right off!

ANTENNA WAX has received the following testimonials from the following Washington area amateurs who have tested the product;

N4YE: "With ANTENNA WAX reception is now crystal clear, even in heavy thunderstorms. I can actually see the QRN slide right off the antenna!

N4GHI: "ANTENNA WAX lets me turn my 8 element 40 meter beam in the fiercest Northeast winds with the motor of an ordinary electric eggbeater."

W3ELS: "ANTENNA WAX lets my signal slip right through the pileups! I have worked 12 new countries in the past week thanks to ANTENNA WAX."

NK4U: "With ANTENNA WAX I now can use my 2-meter RubberDucky antenna on all HF bands between 160 and 10 meters. One application of ANTENNA WAX and all those nasty standing waves can no longer stand up on my rubber ducky. They slimply slide off and go bother some other antenna. My SWR's are flat no matter what frequency I'm on. "

N4DR: "Not only does QRM, QRN and SWR's slide off my beam, but so do the birds! No more bird's nests in my antennas. No bird droppings on my grass either!"

The secret formula for ANTENNA WAX is rumored to contain ordinary household wax, 38 weight diesel oil, powdered QSL cards from Albania, and mud from beneath the ARRL Headquarters building. Easy to use ANTENNA WAX simply wipes on and lasts 3-4 weeks. It should be available from all finer amateur radio outlets soon.....

AMATEUR RADIO CALLSIGN HISTORY

By WB4FDT

(Reprinted From April 1985 Virginia Ham)

When I worked for the FCC in the Amateur Radio Division, our biggest headache was amateur radio callsigns. There was an "in-house" joke to the effect that no amateur was satisfied with his or her callsign. Hams with "non-preferred" (WA and WB callsigns) all wanted "preferred" one by three callsigns. The hams with preferred one by three callsigns (like W4ABC) wanted two-letter suffixes (like W4AB). Various amateurs wanted the callsign of a deceased friend or relative. And so on...

The following is a short chronicle of the history of amateur radio callsigns, with an eye toward Virginia's callsign area, which, as you are about to find out, was not always the fourth call area.

Prior to 1912 there were no required callsigns, simply because there was no licensing of radio stations in the United States. Pioneer amateurs used their initials. Since the range of the average spark station was only a few miles, no further identification was needed.

With the passage of the Radio Act of 1912, amateurs had to be licensed to operate and were assigned their first government issued callsigns. The United States was divided into 9 callsign areas. All amateur calls began with a number, followed by 2 letters, such as 4FD. The number of these "two-letter" suffixes quickly ran out, and a third letter was added, e.g., 4FDT. Since there were many "two letter" callsigns in use, it was generally not considered prestigious to have a two letter callsign until the mid-1930's. In some call areas, two letter callsigns were available upon request. Virginia was apart of the third call area until 1946.

The third call area reissued many two letter callsigns as they became available. The last two letter callsigns to be issued, as far as I can determine, were in 1927 in the third call area. It is also interesting to note that after the first World War, many amateurs considered the longer three letter callsigns to be more preferable to a shorter callsign. and specifically requested a longer callsign.

As the state of the art moved forward, amateurs began experimenting with short-wave frequencies, and international QSO's became more commonplace. European amateurs were using the same system of callsigns that the United States was using, and it was impossible to tell if the station was in the States or in Europe. Thus, to avoid confusion, many amateurs began to use a underline two letter prefix. In the US, amateurs used "NU". The first letter stood for the Continent "N" for North America, the second letter stood for the country "U" for USA. Canadian amateurs used "NC" for North America-Canada. Australian amateurs used the prefix "OA", "O" for the continent Oceania, and "A" for Australia.

In the late 1920's it was apparent that some sort of international system of callsign prefixes was needed. The International Radio Conference of 1928 assigned world-wide prefixes to all radio services. The Department of Commerce decided that radio amateurs within the continental United States should use the prefix "W". Amateurs in US territories or possessions would use the prefix "K".

In 1946 a tenth callsign area was added. This was the zero, $\emptyset$, call area. At this time, the boundaries of several callsign areas were changed, Virginia was moved into the fourth callsign area. I do not know the reason for this. In some instances, amateurs were able to receive the same suffix, or a similar one, but most received new callsigns.

The new Ø callsign area was assigned to the mid-western states, which formerly had been part of the ninth call area. Also, various U.S. possessions and territories were assigned their own special perfix (KL7, KH6) for the first time. This prefix still began with a "K".

By the mid-1950's, many call areas experienced a shortage of 3-letter suffixed calls beginning with "W", so the Commission began issuing 3 letter suffixed calls beginning with "K" (e.g., K4AAA). In the fourth call area, "K" prefixed calls were issued between 1955-1959.

The addition of the Novice Class license in 1952 brought the first 2-letter prefixed, 3 letter suffixed callsigns (also called "two by three" callsigns) into the amateur radio service. All Novice licensees were assigned WN prefixes, unless they were issued in U.S. possession or territory, where their callsign began with a "W" instead of a "K" (e.g., WL7AAA was a Novice in Alaska). In the late 1950's the Commission also issued a few "WV" prefixes to Novice class licensees in the second and sixth call areas.

By 1960 the "K" and "W" prefixes nearly filled in some callsign areas the Commission began issuing its first "WA" prefixed callsigns. (The last callsign area to began issuing "WA" prefixes was the third call area in 1965.) In the fourth call area, "WA" prefixed calls were issued between 1960-1964. The first "WB" prefixed calls were issued in 1965 in the fourth call area and continued to be issued until 1970.

Between 1970-1976 in the fourth, second and sixth callsign areas, the Commission reissued all vacant "WA" and "WB" prefixed callsigns. (At the Commission we received many complaints to the effect that "I've been licensed 10 years, have a "WB" prefix, and this new kid down the block gets a "WA" prefix!".) Between 1976-1981 new licensees in the fourth and sixth call area received WD prefixes.

As a footnote, I might also add that between 1960-61, in the fourth call area, if one by-passed the Novice license, and went straight for the general class instead of being assigned a "WA" prefix, you were assigned a preferred "W" prefix.

EXTRA-CLASS CALLSIGNS

In 1969 the Commission allowed any Extra class amateur who had been licensed 25 years to request a one letter prefix, two letter suffixed callsign (e.g. W4AA). This rule was later modified, so that beginning in July 1977 through 1980, any extra class licensee could request a two letter suffixed callsign of their choice.

SPECIAL EVENT CALLS

These callsigns were formerly available to organizations and individuals to help publicize an event or happening. N6V, WW500U, KK6BSA are examples of special event callsigns. These calls were usually temporary, only for the duration of the event. The most popluar event calls were those issued to any amateur requesting them during the International tele-communications Union Week in mid-May. Between 1976-78 over 100 of the special calls, with the suffix "ITU" were issued each year. (in 1977 I requested and received the callsign NQ4ITU.)

TEMPORARY CALLSIGNS

Between 1976-1978 about 100 of these temporary callsigns were issued. Their prefix was always a "WT" (temporary) (e.g. WT4AAA). They were only issued when the licensee had a priority need to have a license immediately. (In those days there were no interim permits--you had to wait until you received your licensee to use your privileges.) The callsign expired upon receipt of the regular license.

NEW "MAILBOX" IN FREDERICKSBURG ON 80 METERS

There is now a Virginia Section Traffic and Net Business Mailbox in operation on
80 meters. The system is operated by KA4ERP, Jim Broadhead in Fredericksburg. The
current operating frequency is 3.613 Mhz every night from 7:00 PM to 10:00 PM
except of course when Jim is not home. The purpose of the system is to handle any
traffic deemed suitable and timely for the "mailbox mode" and also for any Virginia
Section business. Others uses are also encouraged since the system will accomodate
up to 100 messages per disk. The only thing which is not allowed on the system is
the listing of any items for sale or purchase.

The default speed is 100 WPM and the mode is AFSK so if you are operating FSK you
will need to listen down from 3.613 Mhz. The operation is fairly straightforward
and the system will prompt you as you go along. The call up command is //KA4ERP
preceded and followed by a carriage return. Actually while one CR is good, two is
better. The power out (ERP ?) is about 40 watts and Jim uses full wave delta loop
so the signal should be ok to most if not all parts of the state. The system is
also operated in cooperation with NeWB's two meter mailbox which is active on the
Fredericksburg repeater on Monday and Friday nights after 9:00 PM.

You will also find general interest material on the system such as ARRL bulletins,
exam schedules, net schedules, and a Trivial Pursuit question that you can try to
answer. Most people who check in seem to do more reading than writing. If you
check in don't hesitate to leave a message for someone else who you know is up on
RTTY. If they don't check in after a couple of days Jim says he will send them a
message via the nets to let them know they have mail on the system.

I am attaching also, if you want to print it, a copy of the command list for the
system. This command list is uniform for any MBX-64 system.

Activate with //KA4ERP

MAILBOX 64 COMMANDS:

//OPEN	- begin a message
//CLOSE	- end a message
//SAVEFILENAME	- save a message
//PRINT	- print a message
//MSG	- review a message
//CLEAR	- erase a message
//LOAD#	- read a message
//FINDFILENAME	- read alt. message
//DEL#	- delete a message
//FILES	- send directory
//ADIR	- send alt. directory
//SCANVARIABLE	- search message list
//110	- 110 baud ascii
//300	- 300 baud ascii
//60	- 60 wmp baudot
//100	- 100 wmp baudot
//GRAPH	- 110 graphics ascii
//GRAPH300	- 300 graphics ascii
//LOGURCALL	- log on the mailbox
//USERS	- log of mailbox users
//BYE	- deactivate mailbox
//HELP	- mailbox command list
//SYSOP	- call mailbox operator
//BEACON	- mailbox cq call
//COLOR#	- change screen color

ALTERNATE COMMANDS:

COMMAND:	ALTERNATE:
//OPEN	//ENTER
//CLOSE	//END
//MSG	//LIST
//CLEAR	//CANCEL
//LOAD#	//READ#
//DEL#	//KILL#
//FILES	//DIR
//SCANVARIABLE	//SDIRVARIABLE
//BYE	//SLEEP

ALL COMMANDS MUST BE PRECEDED AND
FOLLOWED BY A CARRIAGE RETURN

FILE NAME CONVENTIONS:
  1) MAXIMUM SIZE IS 16 CHARACTERS
  2) ! IN 1ST POSITION - PROTECTION
  3) $ IN 2ND POSITION - ASCII READ
  4) & IN 2ND POSITION - GRAPHICS READ

END OF MAILBOX 64 COMMANDS

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Chaverim of the Greater Washington Area, Inc. ｃＨＡＶＥＲＩＭ חברים

Chavarem again furnished its communications support to the Israel
Walkathon held in Washington, DC. On Sunday, June 2nd, nearly 50
of our members contributed communications along the 10 km route.
A control base station was established on the elipse with members
checking in from along the route. This is the 8th year that our
club has provided this service. Leaders of the walk have
commended Chavarem and indicated that the success of the event
was in great part due to the communications support of our club!
In the past, Chavarem has received special awards of recognition
for outstanding service for this effort. Dave Warton, K3STM, was
the overall coordinator. Dr. Scott Buehler was the master net
control. Among the contributions of this effort were the
locating of lost children and medical evacuation of an injured
walker.

We had a most interesting speaker at our June meeting! Steve
Bookout, NJ4F, spoke about home made antennas and how to work DX
with them. Steve is a well known DXer in the Washington area and
his pointers were valuable.

Our August meeting will include an address by the Northern
Virginia Emergency Coordinator. We are looking forward to
hearing about Amateur radio Public Service.

We are sponsoring a piolit novice class which will begin June
25th and will run for 7 weeks. We hope this will result in new
amateurs in the area later this summer!

Marv, WG4Q

FCC licensing statistics as of March 29, 1985.

Class	January 29	February 26	March 29
Extra Class	36,235	36.303	36,496
Advanced	97,727	97,518	97,490
General	117,093	116,874	116,888
Technician	80,788	80,658	80,850
Novice	80,500	79,497	79,051
Individual Operators	412,343	410,850	410,775
Club Stations	2,329	2,302	2,301
Military Recreation	175	175	174
Secondary Stations	30	0	0
RACES	399	399	375
Total Stations	415,276	413,726	413,625

Goddard Amateur Radio Club

As you read this, planning should be well underway for the Goddard Amateur Radio Club Field Day activities which will be held as usual at the Goddard Visitor Center and Museum. We welcome all to come and stop by to say hello. With some luck this year the weather will cooperate. Last year's activities were rained out for the most part, but the weather didn't stop the club from racking up a good score for the event. This year we're looking forward to including a packet station in the contest. We also will have several new novices to help man our novice station. June 22-23 is the time, and the Goddard Visitor Center is the place. For info, or to operate contact Frank Bauer KA3HDO on the club repeater.

Lots of other activities have been taking place around the club. The 5 positions of the club trailer are nearly finished. They have been reconfigured for shuttle retransmission and Russ N3EGO has begun adding toggle switches to disable shuttle audio and enable regular use by operators. Parts are on the way for the antenna rotor patch facility that NE2J, KA3HDO, N3CJN, N3EGO and the gang are working on. With a little bid of cooperation this venture should be complete by late June. This work will enable an operator at any of the 5 HF positions to select rotors (beams) as well as antennas at each position. We also have most of the parts ready for stringing messenger cables to keep our feedlines off the ground.

WANTED: A FEW GOOD MEN AND WOMEN to assist us in the shuttle audio retransmission efforts. We are in need of operators with advanced and extra class licenses who can devote ANY time to manning the station during retransmission efforts. With the summer vacation time arriving we're especially in need of help. If you can afford even a little of your time for this important service, please call Frank KA3HDO (344-9047) days or catch him on the repeater. He has one of those answering machines so if he's not in leave your name and message. We've received literally thousands of cards and letters in support of this effort. Pass the word to others too.

Congratulations M. L. Each, formerly KL7IWW. Mark is now the proud owner of one of those new-fangled extra calls. He's now NM7S and is looking forward to treating himself to a new solid state rig: Perhaps a 757, 430, of ICOM 735. M. L., let us know which one you choose, and if you're going to make the annual homage to Becks Grove and the Rome Ham Family day with NE2J sometime. See you on the extra segments sometime soon. And WB2EXN...where are you, Dave?

Finally GARC received an award from NASA for the shuttle retransmission effort and for field day. Courtesy of Frank KA3HDO most of the active club members have received copies of the award with their name and call.

Welcome back club president Dick Kutz KS3Q. Dick has taken ill for a while but he's feeling a bit better now. Good to have you back.

EXAMS given by GARC: April 28, May 18. More to come soon......NE2J Rick

Department of State Amateur Radio Club

ANNUAL DINNER. The sixth annual DOSARC banquet was held May 2 at the Arlington Hall Station Officers Club, with some 65 members and guests in attendance. The guest speaker was Fred Laun, K3ZO, who provided a very thought-provoking overview of HAM Radio, and where we may be headed. ARRL headquarters representatives Bill Lazzarro, N2CF, Perry Williams, W1UED, and Hugh Turnbull, W3ABC, provided additional comments on the subject. A short awards ceremony was held. Those receiving awards included John Kanode, N4MM, Tom Dorset, WB4J, Glen Bilger, W4OCC, and John Forrest, WZ4A. Others receiving recognition for outstanding operating accomplishments included Fred Laun, and Steve Bookout, NJ4F.

FOREIGN SERVICE NET. Activity on the net continues interesting, despite the propagation doldrums. Net members had quite a treat in April, when Senator Barry Goldwater, K7UGA. dropped in to say hello. He very graciously took the time to great and chat with each participant in the net, including one or two overseas stations. Dave Siddall, K3ZJ, also on the net, acted as his QSL manager--it is understood the Senator will QSL all those he contacted.

FIELD DAY. This activity will be history by the time this appears in print. Tom Dorset was again acting as Field Day coordinator for the three participating groups. Other representatives besides Tom included Dave Siddall from the Capitol Hill Club and Pete Smith, N4ZR, from the NASA group. Results of the activity will be published later.

VE EXAM. We tested 30 applicants on March 30 at the First Presbytarian Church in Arlington, with a high pass rate, including yours truly, who upgraded to Technician. Special thanks go to Fred Bardsley, WD4DHW, and his team for a job well done. We hope to have another in the near future.

                                    Bruce , WB4LXG

REPEATER CALLSIGNS

Beginning in 1973, repeater stations were assigned the prefix "WR". The Commission in 1978 eliminated repeater callsigns and did not renew those outstanding.

REVENGE OF THE NERDS

There is a feeling in the Commission that since amateurs are now licensing their own, why not let amateurs assign their own callsigns? In this age of deregualtions, why not let an amateur pick his own callsign? Thus, the Commission might throw the callsign problem back at the amateurs and their organizations. I'm sure revenge would be sweet indeed!

(When am I changing my callsign? I'm holding out for W4A and nothing else!)

Shenandoah Valley Amateur Radio Club

ADDRESS: PO BOX 139, WINCHESTER, VA. 22601
REPEATER: W4RKC/R 146.22/.82
MEETINGS: 1ST AND 3RD FRIDAY EVENINGS 8PM AT CLUB HOUSE, GRACE ST., WINCHESTER, VA.

An Event involving Amateur Radio which took place near the Sky-Line Drive April 20-28 might be of interest to AUTO-CALL Readers.

The incident was Search and Rescue Operation for a Woman lost in the mountain area near Browntown, VA, adjacent to the Sky-Line Drive. The enclosed newspaper article from the Winchester Star summarized the event. It is another case where Amateur Radio when requested responds to the needs of a situation.

The Radio Amateur Team developed by the SVARC provided Emergency Communications from an isolated Search and Rescue Base to the Department of Emergency Services and other vital organizations in the Richmond and Charlottesville areas. Using 2 Meter Repeaters the system involved Controlled Use W4RKC/R (22/82) Winchester Repeater and later WA4TSC/R (90/30) Bluemont Repeater. The Radio Link was from the Search and Resuce Base Station to W3MMC in Bergton and later to W4JZC in Harrisonburg, VA, then via 16/76 to KA2PQG and K4TSU near Charlottesville. They in turn provided the Link to N4EXQ in Richmond.

The Search and Rescue Base and Relay System was put into service at 8:00 AM Sunday, April 22 and operated Daily until Darkness during the days of Search Team activity until the woman was found Sunday, April 28. Beyond the Relay System Operators previously named, approximately one dozen other HAMS from Front Royal North thru Winchester to Hagerstown devoted time and effort to this Rescue Mission.

We trust AUTO-CALL will find this Amateur Aid Activity of interest.

Sincerely,

Frank E. Tayler KE4KF
Winchester, VA 22601

Anne Arundel Radio Club

MEETINGS: 8PM 1ST AND 3RD THURSDAYS, DAVIDSONVILLE FAMILY RECREATION CENTER, QUEEN ANNE BRIDGE AND WAYSON
        ROADS OFF MD. RT. 214 NEAR ANNAPOLIS.
ON THE AIR: 2030 THURSDAYS WHEN THERE IS NO CLUB MEETING (2100DST) ON 147.705/105. TUESDAYS AT 2030
        ON 28.710 (2100 DST). THE CHESAPEAKE BAY WEATHER & TRAFFIC NET ON 147.705/105 AT 1100 AND
        1500 EVERY WEEKEND DAY AND PUBLIC HOLIDAY FROM APRIL 1 TO NOVEMBER 15.
ADDRESS: PO BOX 308, DAVIDSONVILLE, MD. 21035
INFORMATION: MARGARET (HOLLY) BEVAN 301-987-4687

Upon completion of the Club's Novice Class in April, twenty-two graduates successfully completed their tests and were awaiting the arrival of their licenses. A few more were expected to come in for testing.

Eight hardy Club members reported early on the cool, misty morning of April 14th to handle communications for the first 10-kilometer run across the Chesapeake Bay Bridge. The run preceded the annual bridge walk.

Under discussion is a proposal by the Club's Technical Committee to set up a packet radio bulletin board and digipeater. Members feel that AARC should keep abreast of the latest development in amateur radio.

Holly, N3BMB

Metropolitan Communications Network Radio Club

MEETINGS: Quarterly, on the second Sunday of the month; place to be announced.

REPEATER: WB3DBU/R, 52,250 Mhz in: 53,250 Mhz out. Accessible on 147.555 Mhz in the Simplex mode.

ON THE AIR: Saturdays, at 19:00 hours.

MAILING: c/o Bob Sporn, WA3GGO, 9927 Cottrell Terr., Silver Spring, Md. 20903

INFORMATION: Bob Sporn, WA3GGO, 434-1719

Our second quarterly meeting will be held June 9th. The "1985 ARRL Handbook" is so popular that some of our members had to wait for another printing to receive their copies. Congratulations are in order to Gary D. Mentro Sr. WB3JRW of the Prince Georges County Police Department upon his promotion.

THE SUNDAY MORNING COFFEE NET (6 METERS AM) ON 50.4 MHZ: SUNDAYS AT 09:00 HOURS

It is with regret that we announce the passing, on April 20th of John F. Weser K3FRO. John, at 82, was our oldest member, who, inspite of ill health, continued on the air. We will all miss him. We welcome a new check-in, W3JPD, Raymond Donohue. William L. Seal, KA3BHP of Severn, MD is another new check-in.

MARYLAND SIX METER FREE STATE SIDEBAND NET: SUNDAYS AT 1900:00 HOURS ON 50.125 MHZ

The net continues under the stewardship of Dick Logan, WB3EPX with bulletins by C.J. Arcilesi (Arch) K3WUR. In Arch's absence, Dick furnished the bulletins. Join us on six meters and share our activities.

73's

Bob WA3GGO

Rock Creek Amateur Radio Association

2 METER NETS: AM 145.20 TUESDAYS 8:35 PM FM 144.65/145.25 MONDAYS 8:00PM
RCARA ALUMNI NET: 7.23 MHz MONDAYS 11:00 AM
RCARA LUNCHEON: WEDNESDAYS, 12 NOON, ANCHOR INN, WHEATON, MD.
MEETING: 8PM THE THIRD FRIDAY OF EACH MONTH AT VITRO LABORATORIES BUILDING 4, 13900 CONNECTICUT AVE.

Our club is gearing up for Field Day. Chairman Bernie Pettit WB9BZL is already lining up his help and making plans. Our site is the Izaak Walton League Park located on Muddy Branch Road in Gaithersburg. Anyone desiring to visit and or operate will be welcome. We expect to be 6A in Maryland.
Eric Meyer N3DYQ at International Day at Georgetown Day School set a radio station up to demonstrate Amateur Radio to students. He was assisted by Ed Morrison W3CY, Liz Zandonini W3CDQ, and Marc DeMoya N3EFY.
John C. Halweg WN3EZS was extended a welcome to the club as a new member. John is a construction foreman for the C & P Telephone Co.

73,

Walt AK3B

Vienna Wireless Society

From David French N4KET

THE HOME OF WINTERFEST™

VIENNA WIRELESS SOCIETY
PO BOX 418, VIENNA, VA 22180
EMERGENCY NET MEETS EVERY THURSDAY AT 7:30 P.M. ON CLUB REPEATER
K4HTA, 146.085/146.685

MEETINGS: Second and fourth Fridays except for winter holiday months. We meet on
the second floor at the Vienna Community Center. Visitors are welcome.

ROGER, THREE MORE JUST WENT BY CHECKPOINT BRAVO

The "MS 150K" bike tour to Harpers Ferry, W.Va., happens May 18-19, with Jeff
Wilkes, W4NFA, coordinating 2-meter communications for the event. At press time
Jeff said he still needs volunteers. The Multiple Sclerosis Bikeathon this year
has been expanded to two days of riding through the Virginia countryside on mostly
back roads and the Old Dominion Regional Park Trail. Up to 250 riders are expected
to accept this challenge. There's a delightful reward at the end of the line--a
ride back to Washington's Union Station aboard an Amtrak Champagne Brunch Special!
(The train ride is for the bikers, not the communications team.)

CQ FIELD DAY, CQ FIELD DAY

Once again, VWS plans a June invasion of Burke Lake Park for Field Day May 22-23.
Bob Lipp, K4MJO, is the top field-hand this year and is coordinating equipment,
antenna needs and operators. Visitors are welcome to drop in for a picnic at lovely
Burke Lake and check out the hamming. Last year some 26 VWS volunteers set up nine
stations and operated all night. This year's Field Day Rules are in the latest QST.
There's a real challenge, too: A bonus for packet QSO's.

IN THE TALKING STAGE

At the last April meeting of VWS interest was expressed in three possible future
activities. There seemed to be growing interest in monthly informal technical
sessions where members could take their new projects or old problems. It was noted
that a meeting place would be needed. Members also declared interest in holding a
transmitter hunt within Vienna Town Limits sometime after Field Day. It was also
suggested that a club swapfest might be a good idea for those doldrum days between
major hamfests.
Speaker at the April 26 meeting was Vernon Hill, W4DZI, who asked, "What hobby
is closely associated with Amateur Radio?" After "photography" failed to win any
prizes, Vern gave us the answer: "Aviation," and he showed a film by the FAA called
"Private Pilot." It showed the fun and advantages of general aviation through the
eyes of a family off on a business and pleasure trip to Jacksonville and then on to
the Florida Keys. (Actually, the author is only kidding about photography, ARRL
lists it along with flying as the other hobbies Hams do most.

MARYLAND HAMFEST

AND COMPUTERFEST
SPONSORED BY THE
BALTIMORE RADIO AMATEUR TELEVISION SOCIETY

SUNDAY, JULY 28, 1985
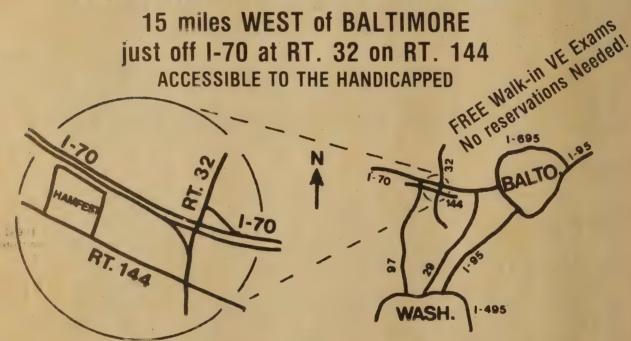
OPEN FOR SET-UP, SUNDAY AT 6 A.M.
DEALER SET-UP BEGINS SATURDAY AT 2 P.M.

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ACCESSIBLE TO THE HANDICAPPED

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GOOD FOOD   REFRESHMENTS   COMPUTERS   RAIN OR SHINE

TALK-IN: 146.16/76	TICKETS: $4	FOR INFO & RESERVATIONS,
147.63/03	TAILGATING	WRITE: BRATS
146.52	TABLES AVAILABLE	P.O. BOX 5915
		BALTIMORE, MD 21208

KIDS UNDER 12 FREE!

SHACK SALES

FOR SALE: ZENITH Monochrome monitor model ZVM-122, 12" amber, still under guarantee. Excess to my needs. $75.00. M. Green (w) 688-6108, (H) 773-2547.

FOR SALE: Heathkit linear SB-200 $200.00.
KENWOOD TS-830 ---------------- 600.00
Heathkit monitor scope HD10 ---- 40.00
MFJ versa tuner II ------------- 60.00
Heathkit SWR bridge, HM-102 ---- 30.00
Kenwood SP-820, spkr and filter - 60.00
MFJ Econ Keyer ----------------- 20.00
GSC 20 AMP, 12 volt supply ------ 50.00
Micronta 12 volt 2 amp PS (2) --- 20.00
Lunch Counter 550 Mhz ----------- 50.00
Heathkit HW 2036 two meter ------ 100.00
Heathkit SWR meter -------------- 15.00
MARS SWR meter ------------------ 10.00
ICOM 2A with antenna ------------ 100.00
Vic-20 Commodore/Microlog/tape
recorder, Air/TV ---------------- 400.00
DSI Frequency counter 3550 ------ 50.00
B&W Antenna Switch 3 position --- 10.00
Swan wattmeter WM1500 ----------- 50.00
Kenwood TR2200A (2-meter xcvr) -- 150.00
Swan Cygnet -------------------- 50.00
Kantronics, the Interface ------- 175.00
KLM 2 meter Receive Amp MA35BL -- 40.00
Hammarlund HQ-150 receiver ------ 100.00
Antenna in yard. Triband Spider Quad, rotor 40 foot tower, $900.00. You take down. Lottie Harris (301) 420-6893

FOR SALE: Mini-quad, 20-6 meters, excellent condition, intact on ground. Haul it away. $100.00. Phil W3ELS, (301) 441-1946

FOR SALE: Temp S-4 handheld for 440 Mhz. Synthasized, virtually never used. $150.00. Phil, WB4FDT, (703) 734-2987

FOR SALE: Kenwood TS-130S, $350.00. A.E.A. mba reader, $150.00. Astron RS-20A P/S $70.00, Motorola HT220's, VHF and T-Band, with converticoms $350-$500.00 each, Motorola VHF pageboy, $25.00. General Electric PE portables, 450 MHz with portacoms, $300.00 ea. Motorola 40 ch CB $25.00. Regency HR2B $40. Liberty 5" color TV/videa monitor $150.00. Royce 40 ch, CB $25.00. 2 in dash car steros, one AM/FM 8-track, one AM/FM cassette, $40.00 each. NO REASONABLE OFFER REFUSED. Call Bruce, WB3JPB, (301)262-7260.

MEED Instruction manual or photocopy with circuit diagram for Measurements Inc. Model 82 Signal Generator. Please call Jack Geist, N3BEK, 942-5949.

NEED ANTENNA OR TOWER WORK DONE?? CALL L. Chertok, W3GRF, 297-4888

REMEMBER THE BRATS MARYLAND HAMFEST AND COMPU-TERFEST, oldest and largest of the 3 hamfests at The Howard County Fairgrounds, Sunday, July 28. For table reservations and infor-mation contact BRATS, PO BOX 5915, Baltimore, Md 21208

CHESS PLAYERS: Radio chess is now national/ international on shceduled nets. You don't need to be a chess expert to enjoy both hobbies combined. Send SASE to K2VJ, Box 682B, Cologne, NJ 08213

STAMP COLLECTORS: DID YOU KNOW THAT ALMOST 30 COUNTRIES AROUND THE WORLD HAVE ISSUED STAMPS HONORING AMATEUR RADIO? Send SASE for my pricelist. HAMSTAMPS, P.O. Box 3308, Falls Church, Va 22043.

From time to time the Widow's Assistance Pro-gram of the Foundation for Amateur Radio has equipment or parts that are not suitable for sale at hamfests. Rather than destroy these items, we offer them as a donation to various Amateur Radio Clubs who are members of the Foundation. These items would be especially useful to clubs which operate Novice training programs or have active club building projects If your club is interested, please contact Marc Pressman, N4DR, evenings at 460-5108.

Amateur and 2 way radio repairs and install-ations etc. Call Bruce, KA3EIE, 301-461-1550 (home) or 301-953-1557 (work).

SHACK SALES

FOR SALE: Hy-gain EX-14 antenna $240.00; Hy-Gain HAM IV Rotator w/brake delay $170.00; Heights aluminum tower, free standing 40 foot w/HD 8-ft alumn. mast and rotor plate, fold-over at 16 feet $500.00; KENWOOD TS-520 with tuner, MIC, 12vdc cable, spare 6146's, service manual $350.00; Heath SB-200 linear Amp with 10 meter band and 8873 Eimac tube conversion kit $350.00; Tektronix type 585A Oscillo-scope with type 8Z dual-trace plug-in unit and scope cart, probes, no schematic $300.00; and MUCH, MUCH, MORE--ham fear, test gear, and antique radios. All with original manuals un-less otherwise noted. Call or send SASE for complete list. K3CBW, Earnie, 1919 Clifton Rd, Catonsville, MD 21228 (301) 747-1377.

STOLEN: Icom 730 HF TRANSCEIVER, serial # 10250. Call Ron KA3FYY, (301) 937-8150 (work) or (301) 937-3134 (Home). Reward.

HELP!! HELP!! I'm rebuilding a poorly con-structed Johnson Viking Challenger to put back on the iar, Greviously need schematic as minimum. Copy of construction manual as opti-mum. SELL!! SELL!! Heath HR1680, HX-1681, Pwr supply, & cables, $350.00. Very gud QSK rig for the serious CW OP. Also Collins mfg'd 75-J-4 with 1 khz mech filter, $150.00. Both excellent condition with manuals and schematics. Write or call Herb Ley, N3CDR, (ex-W3VYN), P.O. Box 2047, Rockville, MD 20852 (301) 279-2685 evenings.

FOR SALE: Thermoelectric cooling unit Borg-warner LHP-800, liquid cooled hot side, cold sink fine, minus fan. Used 8 hours. 15 or 30 vdc operation. Discuss price. Casement Airtemp a/cond. condenser fan GE5KSP11DG21-6BX $5.00. W3HML Krebs, (202) 561-8060.

SALE OR TRADE: Teletype©Model 37 ASR/W punch ascii, EXCELLENT CONDITION. Includes tape and paper or trade for RTTY Terminal Unit. Contact Fred WB3JKC (301) 225-0652 Baltimore, Md evenings after 9 p.m.

AEA MORSEMATIC MEMORY KEYER for sale. Great for code practice. $75.00. N4YE (703) 256-8087 evenings.

FOR SALE: YAESU FT-101E transceiver, with fan and CW filter. 160-10 meters. SSB-CW-AM modes. Built-in A/C power supply. LIKE NEW. Call Orin, WD6FLB, (703) 920-6113.

SALE SALE SALE!! Collins station-75S-1 receiver, 312-B3 speaker, 32S-2 transmitter, 516F-2 power supply, D-104 Mike. recently tubed and aligned. Excellent condition, $350.00. New Cushcraft 4-element 15 meter beam $90.00. HY-Gain tape di-pole antenna,3-30 MHZ frequency coverage, $80.00. Bill Mills KC5PF/4, (703) 425-8116.

TEN-TEC OMNI-B transceiver with manuals. SN#546-1909. With 500Hz CW filter, 252 power supply. Ten-Tec mike. Excellent shape. Call Rich Battle, 8:30-4p.m. Monday-Friday 621-7072 (DC) or (301) 867-1241 evenings.

RS-232-C printer/terminal. T.I. silent 700. 30 cps. A give away at $25.00 each. Bill, K3OF, Rockville (301) 929-1915.

COMPUTER TERMINAL. RS-232-C compatable, connect to modem for on-line use. T.I. Silent 700 with dual cassette drives, integral printer. $25.00 each. Bill K3OF, Rockville (301) 929-1915.

FOR SALE OR TRADE. INFO-Tech model 30 CW decoder, factory checked. Very good condition, $90.00. Clegg 66er, 6 meter AM trasnceiver, very good condition $35.00. Clegg 22er, Mk II, two meter AM transceiver, above average condition, $25.00. Will consider trade for Bird Watt meter. Mark Zuk, WA4DNN, Springfield, Virginia (703) 451-5212.

FREE!! 1947 Hallicrafters SX-43 w/manual and some spare tubes. Works, 10-80 mtrs plus AM and FM broadcast. Also, about 40 pounds of assorted transformers and chokes. Parts of old army transmitters. First caller takes all--MUST TAKE ALL. W4EGU (703) 751-4037.

Washington Adventist Amateur Radio Association

MEETINGS: Last Sunday of the month (except summer) Sligo Seventh-day Adventist Church
           office Building, 7710 Carroll Avenue, Takoma Park, Md
INFORMATION Henry Miller, W3BWN, 474-7376

UPGRADES! The Club's General/Tech course offered by the club brought us a nice group of
upgrades from Novices. Diane Weisburger, N3EKB ex-KA3NJV, has upgraded to General Class
with a perfect score on her written exam. The following have upgraded to Technician:
George Abraham, KA3NNF, Lauri Aho KA3NXU, Art Bergman N3EKC, Don Gilbert, Merle Mills,
KA3JQS, Mike Moulder KA3MSR, Bill Onuska Ka3NNY, Barry Rowe KA3NXW, David Scearce
KA3NKC, and Paul Scearce KA3NNI. In addition, non-class members Jerry Cullum, N3EII
(was KA3LQV) and Ravi,KA3NNJ, have upgraded to General. Congratulations to all !!

Last month Norm Jeweler of the United States Tower Services gave us an outstanding
presentation on amateur radio towers. After this meeting many of us helped with the
amateur radio display at Columbia Union College's activity night. A sequel to the March
meeting was given in April when Roger Kaul told us what to put on the towers. Roger's
presentation on HF antennas opened our eyes and gave us many new ideas. This summer we
plan to visit his home QTH to see his antenna installation and this will be followed
by a picnic or watermellon feed at a nearby members' home.

On Memorial Day Sunday most of our new Techs and Generals (Along with some veterans)
provided communications for the first annual 10 kilometer Healthy Choices Run which was
held in Spencerville. Both the communications and the run itself were flawless. Ed
Peterson, K3LJF, served as Net Control. Some of the operators used borrowed 2-meter
rigs and some of these people went to the Maryland FM hamfest after the run to buy their
own radios!

A retreat/Campout was held on the following weekend (May 31-June 2) at a church-owned
facility near Frederick. Sixteen people stayed the entire weekend and another sixteen
came on Saturday to worship and fellowship. In addition to spiritual and physical refresh-
ment and a lot of fun, some good 20-meter DX was worked with a 400 foot longwire antenna
using the chassis of the club president's VW Rabbit as a ground. Special thanks goes to
Blossom Engen, KA3NNE, who saw to it that we ate well.

Every Sunday night at 2030 local time we have a training and information net on the 146.88
repeater. Guest checkins are welcome.
                                        Henry Miller W3BWN.

TO: Auto-Call Magazine
     1829 Stanley Place
     Falls Church, Va 22043

Please enter my NEW_____   RENEWAL_____   Subscription for
ONE YEAR_____   TWO YEARS_____   THREE YEARS_____   OR_____.

I enclose $1.00 for a sample of your latest issue_____

ANNUAL SUBSCRIPTION RATE IS $6.00 yearly. Checks should be made payable to : Foundation
                                                                    for Amateur Radio.
NAME _____ CALL_____

ADDRESS_____

_____/ZIP _____

Foundation Services

TRAINING PROGRAM

ANNE ARUNDEL.....	
ARLINGTON........	Eric Nyman 536-4326
BALTIMORE........	Roland Slatkoff 922-5779
BRATS............	Cam Whetstone 486-2609
COLUMBIA.........	Sue Crawford 286-3805
DEPT. OF STATE...	Tom Dorset 525-1488
FREDERICK........	Steve Bauman 662-4552
FAIRFAX CITY.....	.
FRIENDSHIP.......	Gene Knapp 766-7940
GODDARD..........	Rick Penc, (301) 776-9312
HAGERSTOWN.......	Bill Drager 733-9210
LAUREL...........	Frank Treadwell 498-2213
LINTHICUM........	Cleo Bushy 789-2131
MONTGOMERY CO....	Walt Ramsey 949-3954
MOUNT VERNON.....	Glenn Bilger 960-2956
NAVAL RESEARCH...	Doug Kopp 767-2570
NVCC - Louden....	777-1056, ext. 4551
OLE VA. HAMS.....	Dick Miller 791-3839
PENTAGON.........	Chip Lohman 695-0154
PG COUNTY........	Kay Alston 779-8369
SEVENTH DAY ADV..	Henry Miller 474-7376
SOUTHERN MD......	Rube Chernikoff 423-3372
VIENNA...........	Bob Ruedisueli 759-5730
WARRENTON........	Don Kuse 347-8630
WOODBRIDGE.......	Ted Schaeffer 670-8247

The Training Class list is presented to enable those interested in getting some instruction in the theory and code necessary to pass the amateur exams, to find a location nearest or most convenient to them. At the end of most classes the Novice examination will be given, for others, the examination will have to be taken at the local FCC office or one of the Field Examination points.

WIDOW'S ASSISTANCE

The Foundation provides a Widow's Assistance program, for widows of local Amateurs, to assist them in evaluating and disposing of Amateur equipment. Contact Bill Parrott, W4URL, 8548 Georgetown Pike, McLean, Va., 22101. Phone (703) 893-8383 between 8:00 a.m. and 8:00 p.m., please.

LICENSE EXPIRATION NOTICE

This service provides a reminder before your license expires. Note the expiration date of your license on a self-addressed postcard and send it to Henry J. Kessler, KQ3S, 8904 Boxford Court Laurel, Maryland 20708. He will return the card to you at the proper time for reminder of renewal. This is a valuable service. Use it.

"PLEASE REMEMBER the Foundations's Scholarship Program. Each year your Foundation awards 15 or more scholarships to help younger amateurs pursue a college education, and thus to advance the cause of Amateur Radio nationally. The past generosity of individuals and organizations has made these scholarships possible. They will continue in the future as long as amateurs like yourself remember the scholarship program through their financial support. Why not consider a bequest, endowment, memorial fund or a legacy (in your name) to the Foundation's Scholarship Program? Contact any Foundation Officer for more information.